

CLAIM AMENDMENTS

1 Claim 1 (original): A method for simultaneously planarizing to relatively equal smoothness a
2 thin film magnetic head hardbaked resist structure having relatively low surface energy and one
3 or more additional thin film magnetic head structures containing other materials of comparatively
4 higher surface energy, said method comprising the steps of:

5 preparing a chemical mechanical polishing (CMP) slurry targeted at equaling the rate of
6 removal of said hardbaked resist structure having relatively low surface energy and said one or
7 more additional structures containing other materials of comparatively higher surface energy;

8 said CMP slurry including a liquid vehicle containing an oxidant and a complexing agent,
9 an abrasive, and a surfactant; and

10 applying said CMP slurry to the surface of said structures and simultaneously planarizing
11 said structures using a CMP planarization technique.

1 Claim 2 (original): A method in accordance with Claim 1 wherein said other materials include
2 copper, alumina and NiFe.

1 Claim 3 (original): A method in accordance with Claim 1 wherein said surfactant comprises a
2 non-ionic surfactant.

1 Claim 4 (original): A method in accordance with Claim 1 wherein said surfactant comprises
2 octylphenoxypolyethoxyethanol.

1 Claim 5 (original): A method in accordance with Claim 1 wherein said abrasive comprises silica.

1 Claim 6 (original): A method in accordance with Claim 1 wherein said liquid vehicle comprises
2 water, said oxidant and said complexing agent.

1 Claim 7 (original): A method in accordance with Claim 1 wherein said oxidant comprises
2 persulfate.

1 Claim 8 (original): A method in accordance with Claim 1 wherein said complexing agent
2 comprises ammonium.

1 Claim 9 (original): A method in accordance with Claim 1 wherein said oxidant and said
2 complexing agent comprise ammonium persulfate.

1 Claim 10 (original): A method in accordance with Claim 1 wherein said slurry comprises about
2 0.01-1.0 % (by volume) of said surfactant.

1 Claim 11 (original): A method in accordance with Claim 1 wherein said slurry comprises at least
2 about 0.2 % (by volume) of said surfactant.

1 Claim 12 (original): A method in accordance with Claim 1 wherein said slurry comprises about
2 0.5 % (by volume) of said surfactant.

1 Claim 13 (original): A method in accordance with Claim 1 wherein said slurry comprises an
2 aqueous liquid vehicle containing about 6-12 % (by volume) of said abrasive, about 1.5-3
3 grams/liter ammonium persulfate, and about 0.02- 1.0 % (by volume) of said surfactant.

1 Claim 14 (original): A method in accordance with Claim 1 wherein said slurry comprises an
2 aqueous liquid vehicle containing about 6-12 % (by volume) of said abrasive, about 1.5-3
3 grams/liter ammonium persulfate, and at least about 0.2 % (by volume) of said surfactant.

1 Claim 15 (original): A method in accordance with Claim 1 wherein said slurry comprises an
2 aqueous liquid vehicle containing about 6-12 % (by volume) of said abrasive, about 1.5-3
3 grams/liter ammonium persulfate, and about 0.5 % (by volume) of said surfactant.

1 Claim 16 (original): A method for fabricating a thin film magnetic write head, comprising the
2 steps of:
3 forming one or more thin film layers that comprise a hardbaked resist structure having
4 relatively low surface energy and one or more additional structures containing other materials
5 having comparatively higher surface energy;
6 simultaneously planarizing said structures using a chemical mechanical polishing
7 planarization technique and CMP slurry targeted at equaling the rate of removal of said
8 hardbaked resist structure having relatively low surface energy and said one or more additional
9 structures containing other materials of comparatively higher surface energy; and
10 said CMP slurry including a liquid vehicle, an abrasive, and a surfactant.

1 Claim 17 (original): A method in accordance with Claim 16 wherein said other materials include
2 copper, alumina and NiFe.

1 Claim 18 (original): A method in accordance with Claim 16 wherein said surfactant comprises a
2 non-ionic surfactant.

1 Claim 19 (original): A method in accordance with Claim 16 wherein said surfactant comprises
2 octylphenoxypolyethoxyethanol.

1 Claim 20 (original): A method in accordance with Claim 16 wherein said abrasive comprises
2 silica.

1 Claim 21 (original): A method in accordance with Claim 16 wherein said liquid vehicle
2 comprises water, said oxidant and said complexing agent.

1 Claim 22 (original): A method in accordance with Claim 16 wherein said oxidant comprises
2 persulfate.

1 Claim 23 (original): A method in accordance with Claim 16 wherein said complexing agent
2 comprises ammonium.

1 Claim 24 (original): A method in accordance with Claim 16 wherein said oxidant and said
2 complexing agent comprise ammonium persulfate.

1 Claim 25 (original): A method in accordance with Claim 16 wherein said slurry comprises about
2 0.01-1.0 % (by volume) of said surfactant.

1 Claim 26 (original): A method in accordance with Claim 16 wherein said slurry comprises at
2 least about 0.2 % (by volume) of said surfactant.

1 Claim 27 (original): A method in accordance with Claim 16 wherein said slurry comprises about
2 0.5 % (by volume) of said surfactant.

1 Claim 28 (original): A method in accordance with Claim 16 wherein said slurry comprises an
2 aqueous liquid vehicle containing about 6-12 % (by volume) of said abrasive, about 1.5-3
3 grams/liter ammonium persulfate diluted in water, and about 0.02 -1.0 % (by volume) of said
4 surfactant.

1 Claim 29 (original): A method in accordance with Claim 16 wherein said slurry comprises an
2 aqueous liquid vehicle containing about 6-12 % (by volume) of said abrasive, about 1.5-3
3 grams/liter ammonium persulfate, and at least about 0.2 % (by volume) of said surfactant.

1 Claim 30 (original): A method in accordance with Claim 16 wherein said slurry comprises an
2 aqueous liquid vehicle containing about 6-12 % (by volume) of said abrasive, about 1.5-3
3 grams/liter ammonium persulfate, and about 0.5 % (by volume) of said surfactant.

1 Claim 31 (currently amended): In a disk drive having a housing, a rotatable magnetic recording
2 medium in the housing, an actuator carrying an actuator arm, a suspension, and a read/write head
3 disposed in adjacent relationship with the recording medium, an improved magnetic write head
4 having a hardbaked resist structure and one or more additional structures containing other
5 materials having comparatively higher surface energy, said structures ~~being~~ having a
6 substantially even surface profile as a result of being simultaneously planarized according to a
7 planarization process comprising:

8 preparing a chemical mechanical polishing (CMP) slurry targeted at equaling the rate of
9 removal of said hardbaked resist structure and said one or more additional structures containing
10 other materials of comparatively higher surface energy;

11 said CMP slurry including a liquid vehicle containing an oxidant and a complexing agent,
12 an abrasive, and a surfactant; and

13 applying said CMP slurry to the surface of said structures and simultaneously planarizing
14 said structures using a CMP planarization technique.

1 Claim 32 (currently amended): A disk drive in accordance with ~~Claim 29~~ Claim 31 wherein said
2 slurry comprises an aqueous liquid vehicle containing about 6-12 % (by volume) of said

- 3 abrasive, about 1.5-3 grams/liter ammonium persulfate, and about 0.02-1.0 % (by volume) of
- 4 said surfactant.